

ABSTRACT OF THE DISCLOSURE

A substrate processing apparatus 8 for feeding a processing liquid and processing a substrate W with the processing liquid comprises holding member 22 for holding the substrate W, and a lower side member 42 which is moved relatively with respect to the back surface of the substrate W held by the holding member 22 between a processing position A near the substrate undersurface and a retreat position B remote from the substrate undersurface. The processing liquid is fed between a gap between the lower side member 42 moved to the processing position A and the back surface of the substrate held by the holding member 22, and the substrate undersurface is processed. A cleaning processing unit 221a as one embodiment of the liquid processing apparatus comprises a spin chuck 22 for holding a wafer W substantially horizontally, a stage 224 substantially horizontally below the wafer W held by the spin chuck 223, and a cleaning liquid discharge openings 241 for feeding a required cleaning liquid into a gap between the wafer W held by the spin chuck 223 and the stage 224. The stage 224 has the surface coated with a hydrophobic polymer so that the surface has wetting which allows a contact angle of the cleaning liquid to be above 50E. A layer of the cleaning liquid is formed in the gap between the wafer W held by the spin chuck 223 and the stage 224 to subject the wafer W to the liquid processing.